

Association of Diethylstilbestrol Exposure and Uterine Leiomyoma in African American Women
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Uterine leiomyoma, commonly called fibroids, are highly prevalent benign tumors which are leading contributors to hysterectomies. Associated symptoms include reproductive problems, pelvic pain and heavy menstrual bleeding. Fibroids have an elevated occurrence in African American women, along with increased symptom severity and earlier onset among younger age groups. It has been established that hormones influence fibroid development, and recent studies suggest that fibroid development is influenced by fetal and childhood exposures to hormones which later impact how a woman's body responds to hormonal challenges as an adult. Early life exposure to diethylstilbestrol (DES), which is a teratogenic synthetic estrogen, has been found to cause fibroids in laboratory rodent models. The purpose of this research is to investigate how the mechanisms of DES exposure contribute to disparities in fibroid development in African American women. Coupled with the established role of inheritance in fibroid development, this project hypothesizes that there will be a strong correlation between fetal exposure to DES and the prevalence and severity of fibroids in African American women. The impact of this research will have direct relevance as it can offer insight into preventative medical care by reducing the inheritability of the disease, offer alternative treatment methods and reduce existing health disparities.

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